

Internal Audit

Tempe Fire Medical Rescue Dept.

Fire Prevention

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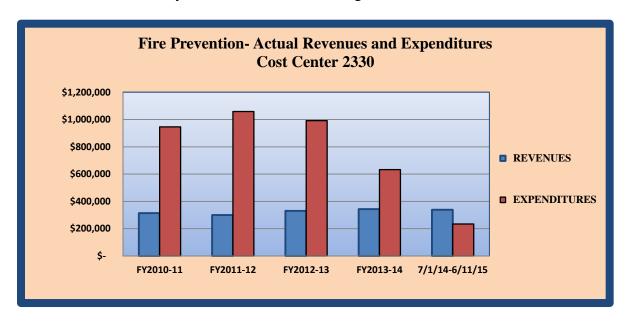
I. INTRODUCTION

The Tempe Fire Medical Rescue Department (the Department) is headed by the Fire Chief and supported by three (3) Assistant, and seven (7) Deputy Chiefs. In August 1997, the Department became the first fire department internationally accredited by the Commission on Fire Accreditation International (CFAI). CFAI re-accredited the Department in August 2012. Fire Prevention (FP) is currently lead by an Acting Fire Marshal reporting to the Assistant Chief over Fire Prevention, Special Operations, and Public Education. FP is a function within the Community Risk Reduction Unit of this area. They are staffed with six (6) Senior Fire Investigator/Inspectors positions, one (1) Fire Investigator/Inspector, and a Public Education Specialist.

Overall Department services include emergency medical, fire suppression, hazardous materials response, fire prevention, public education and organization-wide disaster preparedness activities. FP investigates fires, inspects new and existing construction, and provides public fire education.

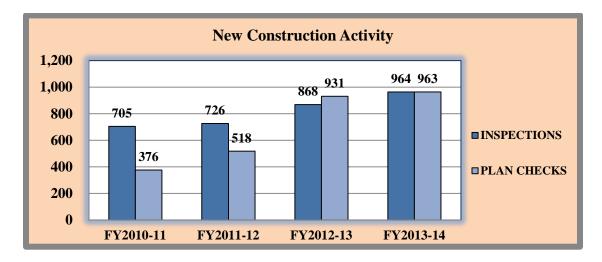
Our audit focused on Fire Prevention. This was not an audit of the entire Department.

In FY2014-15, the Department had an annual General Fund operating budget of \$28,093,376 of which \$234,673 (1%) in actual operating cost was allocated to FP. Salaries and wages represented 67.7% of FP's FY2014-15 expenditures. All budgeted revenues and expenditures were obtained from the City's FY2014-15 Annual Budget Book.



Note: In FY2013-14, as part of a reorganization, 12 civilian positions were removed from the FP budget and reclassed to other departments, which contributed to the decrease in expenditures.

With the growth of development projects within the City's boundaries, FP has experienced a steady increase in plan checks and inspection activities for new construction. For the periods of FY2010-11 to FY2013-14, FP has experienced a 37% increase in new inspection activity and a 156% increase in new construction plan check activity. The chart below summarizes FP's new construction activity for the last four fiscal years.



FP revenue is initially tracked and managed through two separate stand-alone systems, both of which are in transition:

- ♣ Firehouse (FH) Utilized for existing properties, and
- ♣ Permit Plus Utilized in Community Development for new construction.

The FH software application is scheduled for a major upgrade during FY2014-15. Permit Plus was replaced with ACCELA on June 8, 2015.

II. AUDIT SCOPE

Audit Initiation

The audit of FP was performed as part of the Internal Audit Office's annual audit plan. FP was ranked relatively high in our overall citywide risk assessment. Internal Audit collaborated with the Department's management to discuss and confirm the relative risk of this unit within the Department.

Objectives

The objectives of this audit were to determine whether:

♣ FP has a clear mission and strategic vision;

- ♣ Proper controls exist over the cash-handling process to ensure that all revenue due is collected and accounted for;
- ♣ There are adequate internal controls to ensure an effective and efficient fire inspection program;
- ♣ There are adequate controls to ensure an effective and efficient fire investigation program;
- ♣ An effective public education program is provided;
- ♣ There are appropriate controls over contracts, agreements, and grants;
- ♣ Adequate controls exist to safeguard the division's assets; and
- **♣** Opportunities exist to enhance general operating efficiency and effectiveness.

Methodology

We performed the following procedures during the course of our audit:

- ♣ Reviewed applicable policies, procedures, and regulations;
- ♣ Reviewed fire investigation files, system records, and systems in use;
- Reviewed fire inspector training;
- ♣ Reviewed fire inspection rates and pending violations;
- ♣ Evaluated change management processes and procedures related to the FH software application;
- ♣ Evaluated processes and procedures for protecting and securing sensitive, personal, and identifiable information;
- ♣ Reviewed and reconciled fire permit, inspection, record request and copy revenue;
- ♣ Assessed the effectiveness and efficiency of cash handling internal controls;
- ♣ Analyzed the call-out process for investigators;
- ♣ Evaluated the coordination between the Fire Medical Rescue and Tempe Police departments on investigations;
- ♣ Reviewed the mission and strategic plan;
- ♣ Benchmarked with other local cities and similar cities outside the State;
- ♣ Reviewed the public education programs provided;
- **♣** Evaluated controls over the area's assets; and
- Reviewed related grants, contracts and agreements.

Roles and Responsibilities

The Internal Audit Office strives to assist managers with the effective discharge of their responsibilities to achieve departmental goals and contribute to the City's mission. Internal Audit promotes effective controls and furnishes management with an independent appraisal and recommendations related to the activities reviewed. Our role is vital to maintaining the public's trust that the City's resources are used effectively and efficiently.

Department management is ultimately responsible for, and must assume ownership of, their internal control system. Internal controls are used by managers to provide reasonable assurance

that their objectives will be achieved. Internal control is also the primary mechanism for deterring and detecting fraud.

To summarize, Department management is responsible for establishing and maintaining adequate internal controls. Internal Audit must use due care in examining and evaluating the effectiveness of internal controls and to understand the related exposures and risks. Due care does not require a detailed audit of all transactions. Therefore, internal auditors cannot give absolute assurance that all noncompliance and fraud will be detected.

Follow-Up

Internal Audit follows up on the status of all recommendations approximately six (6) to twelve (12) months after audit completion to assess the status of implementation efforts.

III. BENCHMARKING

We performed a benchmarking study involving eight (8) other cities. Three (3) additional cities (one local and two out of State) were asked to participate, but declined. Six (6) local Phoenix-metropolitan area cities participated, along with Corona, California and Springfield, Missouri. Corona and Springfield were chosen as they were a part of the fire station location study recently performed by a consultant for Tempe. These two cities are comparable to Tempe in population and square miles of land. Springfield also is home to Missouri State University. The benchmarked cities as follows:

City	Population	Square Miles of Land
Tempe	166,297	40
Mesa	451,677	136
Chandler	245,671	64
Gilbert	221,223	68
Scottsdale	223,473	184
Glendale	232,035	60
Peoria	159,746	174
Corona, CA	157,719	38
Springfield, MO	162,236	82

Appendix I contains the details of the benchmarking study. Relevant data from the study is mentioned throughout this report. Although it is difficult to compare operations between cities due to organizational structure and programming differences, management can use the benchmarking data as a tool for planning and decision making.

IV. CONCLUSION

Internal Audit found that the department has a clear mission and detailed strategic plan in place to provide solid guidance for the future.

Internal Audit identified opportunities to bolster the internal control environment to support and enhance revenue collection and cash handling procedures and fire inspection and investigation operations. We also found opportunities to more effectively manage grants and agreements and improve record keeping functions related to the education program. Security enhancement opportunities to protect operating assets and system data were also identified.

Throughout the report we list additional opportunities to enhance operating effectiveness and efficiency. Internal Audit truly appreciates the collaborative effort that management and staff extended throughout the course of the audit process.



V. DETAILED OBSERVATIONS

Section 1 –Mission and Vision

A mission statement is vital to the success of an organization as a whole. It can unify an organization and take it to new heights. A clear vision can focus, direct, motivate, unify and move an organization towards superior performance. Clear direction gives a strong foundation to the organization. We reviewed the Department's mission statement and strategic plan. These lay the foundation to align operations with the City's overall strategic priorities.

1. A clearly defined mission and a detailed and fluid strategic plan provide strong direction for the Department.

The mission (also considered the purpose and value statement) of the Tempe Fire Medical Rescue Department is:

"We, the members of the Tempe Fire Department, dedicate our efforts to provide for the safety and welfare of the public through preservation of life, health, property and the environment."

The department also has an extensive strategic plan supporting this mission which details twenty-eight (28) specific strategic goals. The strategic plan is not static; it has undergone three updates since 2013. As of April 2015, of the twenty-eight (28) goals, sixteen (16) are completed, six (6) are on-track for completion, five (5) are postponed, and one (1) removed due to adjusting dynamic priorities. A number of performance measures are also tracked. Having a clear mission and an established fluid strategic plan has provided the Department direction and purpose and fulfilment of operational goals.

Section 2 – Revenues and Cash Handling

FP revenues are sourced through the provision of plan check and inspection services for new construction and existing occupancies, environmental assessment records research, international Fire Code variance requests, field incident reports, and photographs.

All fees related to new construction plan check and inspection services are collected by the Community Development Department located at Tempe City Hall, East Garden. Payments are accepted in the form of cash, checks, MasterCard and Visa. Prior to June 8, 2015, new

construction activity and fees were processed in the Permit Plus management software application system. Community Development migrated to the ACCELA software application system June 8, 2015.

Fees and activities related to existing constructions are processed and collected at the Fire Administration Building and deposited with the City's central cashier at the 525 Building. FP Intergovernmental Agreement payments are also collected and processed for deposit at the Fire Administration Building. Credit card payments are not accepted at the Fire Administration Building. The following chart summarizes the major revenue types collected in the past three years.

Revenue Source	FY2012-13	FY2013-14	July 1, 2014 to June 11, 2015
Fire Inspection Fees	\$125,940	\$134,135	\$134,260
Fire Permits	\$71,276	\$75,115	\$70,425
Other: IGA	\$127,000	\$127,000	\$127,000
Photocopies	\$4,965	\$6,709	\$7,310
Total	\$329,181	\$342,959	\$338,995

2. Strengthened cash-handling controls will enhance security over cash and protect staff.

Cash-Handling Process

For the period July 1, 2014 to January 27, 2015, over \$95,500 in cash and checks were deposited for fees, inspections, site and incident report requests, and intergovernmental agreements. This amount does not include FP inspection

service fees for new construction or remodeled properties. Payments collected at the Fire Administration Building and other remote Department locations are consolidated and deposited by Fire Administration staff.

Risks were identified within the current cash-handling practices. These risks are heightened further by the absence of The current cash handling environment lacks adequate internal controls to protect cash from fraud, theft or misappropriation and makes it impossible to determine if all cash is deposited and correctly recorded in the financial records.

established departmental or citywide cash-handling policies and procedures. During FY2014-15, staff assigned to the FP administration desk to collect and process payments transitioned three times. A high turnover in administrative staff can result in the loss of institutional knowledge and weakened internal controls. Without documented cash-handling policies and procedures and

staff with cash-handling expertise to draw upon as a resource tool, staff relies heavily upon judgment and historical practices when processing transactions. This increases the potential for errors and inconsistent transaction processing.

One of the City's most valued assets is its staff. The current cash-handling practice of counting and preparing deposits at the Fire Administration lobby desk, in view of the general public, place staff at a higher risk of a potential theft. Unsecured cash provides opportunities for theft, fraud and misappropriation of funds. An effective cash-handling procedure protects staff by limiting their exposure to the general public while processing cash and provides accountability for cash balances. A strong internal control environment protects staff when errors or discrepancies occur.

Recommendations



The table that follows identifies areas of heightened risk observed throughout our review of existing revenue collection and cash-handling procedures, describes the risks, and provides recommendations to enhance internal controls to reduce or eliminate the associated risks.

Cash Handling Enhancement Opportunities

	Situation	Risk	Recommendation
A.	DEPOSIT PREPARATION		
	Deposits are prepared by Fire Administrative staff in view of the general public and left on the desk as deposit paperwork is completed.	Unsecured funds are more susceptible to fraud, theft, misappropriation and may be lost or misplaced. Staff safety is at risk.	Deposits should be prepared out of the view of the general public and secured at all times.
	Funds are not deposited within 24 hours of receipt.	Increased potential of funds misplaced, lost or misappropriated. A delay in depositing funds decreases the City's daily cash flow level earning interest.	Whenever possible, funds should be deposited within 24 hours from receipt.
	Staff members performing cash handling duties report to two different chains of commands. Duties and responsibilities are not always processed consistently.	Inconsistency in processes creates confusion and may have a negative impact on staff morale, customers, and the public's perception of FP.	FP and Fire Administration management should ensure that cash handling procedures are processed in a consistent manner.
	All funds received are not recorded on the Daily Intake Spreadsheet, as	Inadequate audit trail for tracking and managing cash,	Management should ensure that all payments

	Situation	Risk	Recommendation
	required by management.	management's expectations are not met, and increased difficulty in reconciling deposits to financial reports.	received are recorded on the Daily Intake Spreadsheet.
	Deposits received near the end of the month are sometimes deposited incorrectly in the next accounting period.	Revenues are reported incorrectly in financial statements.	Generally Accepted Accounting Practices require entities reporting revenue on a cash-basis method of accounting to record revenue when the cash is received.
	Copies of checks and supporting documents for deposits are not maintained by Fire Administration staff.	Lack of documentation increases the amount of time required to research and reconcile deposits and financial reports.	Fire Administration should maintain a copy of all deposit checks and supporting documentation for reconciliation and research purposes.
	Non-cash document titled "Open PO Header by Document Inquiry" was located in the deposit lockbox. The form was dated for October 23, 2014 for the amount of \$6,599. Staff could not identify the purpose of the document or when it was placed in the lockbox.	Misplaced documentation may delay the timely processing of transactions.	Only deposit related documentation should be kept in the deposit lockbox.
В.	ACCESS TO CASH		
	Keys to the locked deposit box were kept in a tray on top of the administrative desk in the Fire Administrative Building's lobby. During the audit, staff secured the keys.	Unauthorized access to cash. Unsecured cash increases the potential for theft and misappropriation of funds.	Access to keys should be limited to staff responsible for preparing deposits.
	Unsecured keys located at the Executive Administrative Assistant's desk unlock the petty cash drawer and a filing cabinet that contains sensitive and confidential personnel files. The keys also unlock the desk drawer located in the front lobby of the administrative area.	Increased potential of unauthorized access to petty cash and staff personal information. This increases the risk of potential identity theft and the risk of fraud or misappropriation of cash.	Management should ensure policies and procedures are developed to restrict access to keys, cash and personnel records.
	During the day, the deposit lockbox	Increased potential of	Management should

	Situation	Risk	Recommendation
	is kept in an unlocked desk drawer. Payments are sometimes kept in the FP administrative unlocked desk drawer overnight.	unauthorized access to petty cash and staff personal information. This increases the risk of potential identity theft and the risk of fraud or misappropriation of cash.	ensure policies and procedures are developed to restrict access to keys, cash and personnel records.
	An envelope is used to transport deposits to City Hall.	Decreased security of deposits.	A locked deposit bag should be used to transport funds. Access to the deposit bag keys should be limited.
	Original checks and cash are sometimes transferred multiple times between Fire Administration, FP and various remote Department locations for payment processing and posting before they are prepared for deposit.	The risk of losing funds, fraud or misappropriation increases as the number of individuals physically processing the funds increase.	The Department should consider centralizing the location for accepting and processing payments.
C.	SURVEILLANCE CAMERAS		
	Surveillance footage is not periodically reviewed by management. Footage is only reviewed when an issue occurs.	Fraud, misappropriation or training opportunities may not be identified in a timely manner.	Management should periodically review recorded surveillance footage for potential irregularities and for training opportunities.
	Management relies on surveillance cameras to monitor staff handling cash at the administrative desk.	The view of the cameras maybe blocked when staff is handling cash.	Management should require staff not to restrict the view of the cameras when handling cash.
D.	COUNTERFEIT		
	Counterfeit markers located in the Fire Administration area are not used to identify potential counterfeit currency.	Loss in revenue if counterfeit currency is accepted.	Ensure staff use counterfeit markers to aide with identifying potential counterfeit currency.
	Staff was not aware of the Federal requirements for handling counterfeit currency.	The appropriate evidence may not be available for potential legal actions.	Management should review the United States Secret Service internet site and contact the Tempe Police Department to determine

	Situation	Risk	Recommendation
			the recommended procedures for handling counterfeit currency.
			Management should ensure that counterfeit currency training is provided to staff.
E.	TRAINING		
	Staff handling cash has not received cash-handling training.	Cash transactions may be processed inconsistently and errors may occur. Management's expectations may not be met.	Management should ensure that all applicable staff members receive cash handling training.

Management Response



We agree with the recommendations and the division manager will implement a revised policy by December 2015.

3. Documented policies and procedures support consistent transaction processing.

Policies and Procedures

The Government Finance Officers Association (GFOA) Best Practices recommends that every

Adoption of comprehensive cashhandling policies and procedures will enhance internal controls over the cash handling process. government should document its accounting policies and procedures as part of a comprehensive framework of internal controls. The documented policies and procedures should be evaluated annually and updated periodically, no less than once every three years. The Department, nor the City overall, do not have comprehensive cash-handling procedures.

Recommendation



A comprehensive cash-handling manual is an effective way of enhancing internal controls and facilitating the implementation of cash handling policies and procedures. FP should work with Fire Administration and Internal Services to develop comprehensive cash handling policy and procedures and provide training to applicable staff members. The policies and procedures should include recommended processes that strengthen internal controls identified throughout this report.

Management Response



We agree with the recommendation and the division manager will implement a revised policy by December 2015.

4. Routine reconciliation of general ledger accounts ensures timely and accurate revenue deposits and reports based on accurate information.

Deposit Processing and Reconciliation

Multiple forms are used by FP operations and Fire Administration in the process of collecting, posting, and depositing payments. The below table illustrates the various cash and deposit processing daily forms in use:

Document Name	Use
Daily Intake Spreadsheet	Excel spreadsheet used by Fire Administration to record receipt of all payments. Some payments recorded on the spreadsheet are forwarded to remote Fire Medical Rescue locations for payment or deposit processing. The Daily Intake Spreadsheet is not reconciled to deposit amounts posted in PeopleSoft financials.
Plan Submittal Review – Permitting Payment Log	A manual log maintained at the FP administrative desk. The log is used by staff to record payments and permits ready for pickup by customers. Upon receipt, payment information is recorded in the log. The log is not utilized to reconcile payments or monitored to ensure that all payments are received.
Deposit Receipt	A controlled number booklet used to issue receipts for payments. One booklet is shared by all staff members.

The above forms are inconsistently completed and do not always include critical information for identifying transactions, such as:

- Permit numbers,
- Property addresses,
- Incident report numbers,
- Method of payment,
- **♣** Check number,
- Date of payment,
- Payment Amount,
- ♣ Name of staff member accepting the payment, and
- General ledger account number.

Deposits are not reconciled by staff to the general ledger or supporting documentation to ensure the accuracy and completeness of posted funds. The below table identifies the amount of FP revenues received in cash and checks deposited by Fire Administration for FP over the past three fiscal years:

Existing Construction and Site Research Revenues

Description	Account	FY2012-13	FY2013-14	7/1/14-	Total
				1/27/15	Revenues
Inspection	4125	\$20,665	\$10,935	\$7,140	\$38,740
Permits	4126	\$36,625	\$43,665	\$24,475	\$104,765
Site/Incident Reports	4913	\$4,965	\$6,884	\$ 3,955	\$15,804
Total		\$62,255	\$61,484	\$35,570	\$159,309

Note: The above revenue does not include new construction revenue deposited by Community Development.

Internal Audit attempted to reconcile the above revenue accounts posted in PeopleSoft financials to documentation supporting public search requests kept by FP staff, and Fire Administration Daily Intake Spreadsheets utilized for recording deposits for the period July 1, 2014 to January 27, 2015. We were not able to reconcile any of the revenue accounts for this period; exceptions are detailed in the following table:

Reconciliation Exceptions

Description	Account	Exceptions
Inspection	4125	\$300 (.36%) unidentifiable variance – General Ledger balance reconciled balance of \$81,940 was less than the Daily Intake Spreadsheet reconciled balance of \$82,240
Permits	4126	\$2,300 (6%) unidentifiable variance— General Ledger balance of \$43,725was greater than the Daily Intake Spreadsheet reconciled balance of \$41,425
Site/Incident Reports	4913	Reconciled with eight items totaling \$340 that were not recorded on the Daily Intake Spreadsheet

The following record keeping processes in place create an environment of risk of undetected errors or misappropriations and contribute to the unreconciled variances:

- The process for site and incident report revenue is managed by one staff member without an independent secondary level of review. The staff member generates generic reports, collects and forwards the payments for deposit and files the reports. Logs and control numbers are not used. The payments are not recorded in FH. The staff member could not identify the total number or amount of revenue collected for site and incident reports.
- Permit and inspection payments are not recorded in FH.
- ♣ The Permitting Payment Log is not always updated with payment information.
- ♣ Deposits are sometimes made without knowing the source of the payment.

Recommendations



FP should ensure that revenues are reconciled to deposit paperwork and PeopleSoft financial reports to ensure that all required funds are collected, deposited on a timely basis, and accurately recorded in the financial statements. The reconciliation process should be completed by a staff member who does not have cash-handling or posting responsibilities.



FP should evaluate the duties and responsibilities of the FP administrative desk. Duties and responsibilities should be adequately segregated to prevent one individual from having complete control over cash, cash logs, invoicing and other applicable documentation of the asset.

- 4.3
- FP should develop a cash-management process for accepting, recording, and monitoring site and incident reports, permit, and inspection revenue. The process should include, but not be limited to:
- ♣ Accessing the feasibility of purchasing and utilizing the FH Accounts Receivable module to generate invoices;
- **♣** Segregating cash handling duties appropriately;
- ♣ Recording all payments in FH; and
- Reconciling payments received against services provided.

The process should be documented in the comprehensive cash-handling manual recommended in this audit report.

Management Responses

- We agree with the 4.1 recommendation and policy was implemented in May 2015.
- We agree with the 4.2 recommendation and Fire Administration is creating procedures and policy to address this issue. This should be complete by April 1, 2016.
- We agree with the 4.3 recommendation. Fire Administration and Prevention will work together to address the recommendations by creating a cash handling procedure and evaluate the FH Accounts Receivable Module. We look to have this completed by June 30, 2016.

5. Compliance with the City's petty cash policy protects City assets from misappropriation.

The City's Petty Cash Policy (PCP) was developed by the Accounting Division to provide guidelines for users to effectively administer their petty cash funds. The PCP was last revised on December 3, 2012. Petty Cash Funds (PCF) provide divisions with ready cash for the payment of small expenditures not exceeding \$100.

A review of all cash and receipts on hand for Fire Administration's PCF on February 10, 2015 was performed to verify the existence of the authorized and issued fund balance of \$275. Results and recommendations from the testing are detailed in the table below which summarizes the observed situation, associated risks, and recommendation to mitigate the risks.

Compliance with the City's Petty Cash Policy can help safeguard funds.

Recommendations

5.1

Fire Administration Petty Cash Exceptions

	Situation	Risk	Recommendation
A.	FIRE MEDICAL RESCUE		
	The custodian for the fund changed in June/July 2014. The appropriate Petty Cash/Cash Drawer Custodian form was not completed until September 19, 2014.	Inadequate chain of custody over securing the department's Petty Cash Fund. Decrease in the ability to hold the correct custodian accountable for any fund variances.	The Petty Cash/Cash Drawer Custodian form should be completed before the existing custodian leaves the Department.
	The custodian does not have a key for the petty cashbox. The unlocked cashbox is kept in a desk drawer. Spare keys to the drawer are kept in an unlocked desk.	The risk of theft, fraud or misappropriation is increased when cash is not secured or is easily accessible.	Access to petty cash should be limited to the petty cash custodian. Adequate key controls should be developed and implemented.
	The required biannual, December 2014, Petty Cash Reconciliation Form was not completed.	Noncompliant with city policies and procedures. Variances may not be identified in a timely manner.	The Department should ensure that all petty cash policies and procedures are complied with, including completion of the biannual Petty Cash Reconciliation Form.
	One petty cash reimbursement processed on December 29, 2014 for diesel fuel totaled \$117.61. This exceeded the citywide \$100 petty cash limit.	Noncompliant with city policies and procedures.	Petty Cash reimbursements should not exceed \$100 per transaction.
	The custodian confirms that expenses paid with a credit card are not being verified to ensure that the card is not a City issued credit card.	Duplicate reimbursement for expenditures may occur. Noncompliant with city policies and procedures.	The petty cash custodian should comply with the PCP and verify that petty cash transactions are not paid with a City issued credit card.

	Situation	Risk	Recommendation
	Two reimbursement receipts were processed on December 29, 2014 and totaled \$82.85 (\$73.81 and \$9.04). The receipts were for food and supplies for the December 16, 2014 staff holiday luncheon. The documentation did not include the required list of attendees.	Noncompliant with city policies and procedures.	The Department should ensure that all documentation for food transactions include a list of attendees.
	One receipt issued on January 27, 2015 for \$5.38 did not identify who the sympathy cards were purchased for.	Noncompliant with city policies and procedures.	The Department should ensure that all documentation provide a clear business purpose for expenditure.
В.	ACCOUNTING DIVISION		
	The current version of the PCP does not include guidelines on transferring custodianship duties and responsibilities.	Transactions are not completed in a consistent manner.	Finance should review and updated the PCP as applicable, including adding guidelines on transferring funds, duties, and responsibilities.

The Department should ensure that the petty cash custodian reviews and complies with the PCP, as well as with the recommendations identified in the above table.

The Accounting Division should review and update the PCP as required. The updated PCP should be distributed to City employees as a training tool and reference guide.

Management Responses

Fire Medical Rescue



We agree with the recommendation. In September of 2014, the Petty Cash custodian was abruptly demoted for serious performance issues. To ensure continuity of security for the petty cash, the current custodian will train at least one other appropriate department member to assume those duties in case of another unforeseen issue. The TFMRD will

seek guidance in crafting a policy regarding transfer of petty cash duties in the case of sudden loss of the custodian.

TFMRD will acquire a key vault for the petty cash custodian by December 31, 2015.

TFMRD will ensure employees are properly trained in city requirements for the use, and accounting of petty cash. This training will be completed prior to May 1, 2016.

Accounting Division



We agree with the recommendations and will have the procedures updated by the end of September, 2015.

6. Automation of manual processes reduces errors and better utilizes limited staffing resources.

Firehouse (FH) System Capacity and Training

FH, a Windows-based software application utilized by FP, was implemented in 2000 to process and manage permitting and investigative activities. The system has advanced features including: database audit log, queries, graphs, internal messaging, and user-defined fields to tailor to users' software needs. In addition to these advanced features, the software offers various modules including:

Occupancy, Permits, and Inspections – Tracks occupancy, building, owner, and contact information, issues, maintains, batches, and renews permits. More expansive utilization of Firehouse functionalities can help strengthen cash-handling procedures, eliminate some manual processes, and decrease staff time to process transactions.

- **↓ Staff Members, Activity, and Training** Maintains confidential information with additional security controls for pay information, casualty reports, Fire and EMS certification details, EMS exposures, and insurance information.
- **↓ Hydrant Management** Maintains complete hydrant maintenance, inspection, and repair records.
- ♣ Accounts Receivable (Add-on Module) Invoices can be generated as activities are added or, when relationships between account records and specific records have been set up. Invoices can be itemized with amounts automatically added.

Opportunities exist to expand the current utilization of the automated functionalities and capacity of the FH system, including:

A. Payment Processing

Payments collected for permits and inspections are not recorded in FH. FH contains fields that would allow staff to record a check date, check number, and amount collected. Updated payment information in FH with the appropriate application controls to limit staff from modifying payments after posting will strengthen controls over cash by allowing staff to:

- ♣ Enhance the ability to identify services rendered, but not billed or paid;
- Reconcile payments received against permits issued to ensure that all funds received were deposited;
- Reconcile revenue against the financial reports to ensure accuracy of revenue reports;
- ♣ Identify the number and amount of record request revenue generated to provide complete
 and accurate statistical data for management planning and decision making; and
- ♣ Increase the speed and efficiency rate for researching payment information to better utilize limited staffing resources.

B. Accounts Receivable Module

Site searches and incident reports are processed manually without the use of control numbers and logs to track the number of requests and amount of revenue collected. This manual process does not provide customers with an automated solution to request and pay for reports online. Manual processes can increase the amount of time required to process transactions and utilize limited staffing resources that could be used to complete other tasks. FH has an accounts receivable module available for purchase that would allow FP to generate controlled invoicing, track and monitor payments, generate revenue reports, and eliminate the manual process for managing environmental assessment record research revenue.

The lack of proper control numbers and management overview of transactions creates an environment in which funds and revenue can be misappropriated without management's knowledge. Without proper controls and documentation, the necessary evidence may not exist to hold individuals accountable for processing transactions.

C. Record Retention

All permit and investigative reports are not scanned and saved in FH. Hard copy reports and supporting documentation for site searches and incident reports are archived in Outlook and stored onsite instead of storing digital copies within FH. Paper copies increase the amount of storage space required to retain documents and encroach on available physical space. FP Management acknowledged that space in their area for storing documents is running low.

D. Training

FP administrative staff has received limited training on FH and is not aware of all of the functionalities of the FH software application. Training is crucial for organizational development, growth, and success. It benefits both staff and management. A well-defined FH training program would:

- ♣ Ensure full utilization of FH and the maximization of return on the City's investment in the application;
- ♣ Produce a more efficient and productive work force as staff becomes more knowledgeable of the application's capabilities;
- 4 Help employees more effectively and efficiently fulfill responsibilities; and
- ♣ Decrease the amount of supervisory time required to manage staff as the potential to automate activities are developed and implemented.

The FH vendor offers annual administrator training for approximately \$1,045 plus travel expense, but it is not attended. Staff referenced limited budget funding as a primary factor for not attending the training. A comprehensive training program provides staff with the tools to work more efficiently and effectively.

Recommendation



FH functionalities should be fully utilized to strengthen cash-handling procedures, eliminate manual processes were applicable, and to decrease the amount of time required by staff to process transactions. The following should be considered:

- ♣ Updating and tracking payment information in FH and eliminating the practice of maintaining the manual permit log;
- Researching the feasibility of issuing invoices for site searching, incident reports and public record requests in FH;
- Researching the feasibility of purchasing and implementing the FH accounts receivables module;
- ♣ Ensuring that all applicable documents are scanned into FH to eliminate or reduce the physical space required for filing paper copies of documents and to ensure that files are complete;
- ♣ Working with Information Technology Department to create an electronic form for site searches, incident request and other public record request that customers can complete and pay for online;
- Researching the feasibility of staff uploading public record request results online for customers to retrieve for a specified period of time;
- Researching the feasibility of allocating funding for providing the FH administrator with training; and
- ♣ Discontinuing the practice of archiving public record requests and results in staff Outlook accounts that restrict the access to the information to the owner of the Outlook account.
- ♣ Implementing an electronic archive in which system and database backup procedures are reviewed to minimize the loss of data. Scanned documents should not be destroyed for 24 to 48 hours in event that a restore is performed and updates and rescans are necessary to bring the system current.

Management Response



We agree with the 6.1 recommendations.

- Fire Prevention will consult with our Firehouse representative to determine availability and cost of these modules by December 2015.
- **♣** FP will research FH invoicing option along with any other software solutions that may be cost effective. This should be accomplished by June 1, 2016.
- ♣ Staff will be trained in the procedure for scanning documents into FH. Light duty personnel or volunteers will be tasked with scanning current documents into FH. The training will be conducted in the first quarter of 2016.
- **♣** Fire Prevention staff will update Volume III, TFMRD Policies and Procedures to include the recommendation.
- **↓** The Fire Prevention Administrative Assistant will coordinate creation of on-line request forms by December 2015.
- ♣ Senior fire department leadership will evaluate accepting credit cards.
- ➡ Staff will work with IT to determine how to accomplish providing public request materials to the requestor electronically. This cannot however apply to medical records due to federal privacy law. This item will be addressed by April 1, 2016.
- ♣ The TFMRD will research the availability of FH training and take reasonable steps to offer it to key personnel by April 1, 2016.
- **♣** *The practice of utilizing Outlook has been discontinued.*
- Fire Prevention staff will update Volume III, TFMRD Policies and Procedures to include the recommendation by February 1, 2016.
- ♣ Fire Prevention staff will work with ITD to explore the feasibility of creating an electronic archive for scanned documents by June 1, 2016.

7. Accepting credit or debit card payments will enhance customer service and limit the amount of cash processed by staff.

For the period July 1, 2014 to February 2, 2015, FP reported revenues collected at the Fire Administration building \$35,570 for fire permits, fire inspections, site searches, and incident reports. All transactions are processed manually and paid via cash or check. FP is not setup to accept credit or debit cards as a method of payment.

Recommendation



FP should work with the Accounting Division to research the feasibility of accepting credit cards as a preferred method of payment. The implementation of a credit card

program will reduce the amount of cash on hand and reduce the City's exposure to potential misappropriation of funds, fraud or errors.

Management Response



We agree with recommendation 7.1. Management will evaluate the cost benefit and feasibility of accepting credit card payments. This evaluation should be complete by June 1, 2016.

Section 3 – Fire Inspections

FP Fire Inspectors enforce adopted City and State fire codes by conducting plan check reviews, inspections, and issuing fire safety permits. FP represents the City's proactive approach to enforcing fire safety standards in order to protect life and property from the threat of fire.

All fire protection inspection fees include plan review, one initial inspection and one reinspection. An additional hourly rate is accessed for any additional re-inspections. Permits are issued for special events, haunted houses, carnivals, trade shows, street festivals, temporary tents, fireworks, and dial-up third party monitoring.

New Construction

New construction plans review and inspections are conducted by two (2) Senior Fire Inspectors located at the Development Services Division in the Community Development Department. Inspections related to fire protection include:

- Fire sprinklers, fire pumps and standpipes;
- **♣** Fire alarm systems;
- Occupancy classifications for the use or storage of hazardous materials;
- Installation or removal of tanks for liquid motor fuels;
- High-piles combustible storage occupancies;
- Kitchen hood fire protection systems;
- Paint spray booths and associated systems;
- Special agent fire protection systems; and
- Compressed gas or medical gas systems.

Existing Construction

The inspection and permitting program for existing occupancies is performed by five (5) FP Fire Inspectors. In FY2013-14, one (1) inspector was reassigned as the FH software application administrator and another inspector functions as the Acting Fire Marshal. Both staff members perform a limited number of inspections due to these additional assigned duties. Inspections on

existing occupancies are performed approximately every six years and are based upon property size, inspection history, and type of chemicals hazardous material(s) stored on site.

FP manages a Company Inspection Program, which assigns each fire engine and ladder company with a list of occupancies to inspect within their management district. Five to six (5-6) low-risk safety inspections per quarter are assigned by an applicable fire inspector to each engine company.

Self-Inspection Program

The Self-Inspection program educates small business owners as to proper FP safety methods and helps to ensure businesses are operating within the City's fire code. This is a volunteer program for which a Fire Safety Permit is issued to businesses submitting the voluntary self-inspection form. The following inspections statics were provided by FP management:

Existing Occupancy Inspection

Fiscal Year	# of Inspections	Square Feet
2012	1,383	44.6 Million
2013	1,405	44.4 Million
2014	1,289	47.9 Million
2015*	725	28.9 Million

^{*}Through 6/9/15

8. A comprehensive FH property address database can increase awareness of known potential City fire hazards.

The procedures for updating new and existing construction addresses in FH and Permit Plus were reviewed with staff. Although procedures are in place to update new construction addresses in FH, opportunities to strengthen the procedures to increase the accuracy and completeness of the address database were identified.

A. FH Address Database

New property addresses are entered into FH by the two Senior Fire Inspectors housed in Community Development. The new addresses are entered into FH at the time that the Plan Review is completed in Permit Plus (ACCELA after June 8, 2015).

A listing to all Fire related addresses from FH and Permit Plus were requested, received, and reviewed by Internal Audit. Permit Plus contained 8,623 Fire related A timely update to the FH address database, using a standardized format to store applicable addresses can reduce the risk of missing inspections and inconsistent query results.

addresses with date ranges from January 6, 1995 to May 14, 2015. The FH listing contained 40,107 addresses. 100% of the addresses from Permit Plus were compared to the FH listing to ensure that all new properties were accounted for in FH. Fifty-nine (59) or .68% of addresses identified in Permit Plus were not accounted for in FH. A complete listing of all commercial addresses in Permit Plus was requested, but not received by the end of the audit. The delay in obtaining the data was related to the audit running concurrently with the implementation of the new ACCELA system.

As a compensating test, a sample listing of ninety (90) commercial bar addresses located throughout the City were selected from the Internet and compared to FH address listings. Thirty-four (34) or 37.8% out of these ninety (90) bar addresses were not located in FH.

An adequate process is not in place for verifying that all applicable addresses are updated in FH. An incomplete FH address database increases the potential that high risk properties will not receive the appropriate inspection which may result in the loss of life or property due to fire.

B. Standardization of Address Format

Property address protocol in FH is not consistent with Community Development's Permit Plus software application. For example, the street name and type are one field in Permit Plus and two fields in FH. Without a consistent address format utilized in both systems, applying automation to query systems for new addresses becomes problematic and requires manual manipulations of the data. Manual manipulation of data increases the potential for error and incorrect or inconsistent query results.

Recommendation



FP should develop a process for ensuring that all applicable addresses are updated in FH in a timely manner. The process should include, but not be limited to:

- ♣ Download a listing of certificate of occupancy address from Permit Plus (ACCELA) and comparing addresses to FH;
- Using light duty staff or volunteers to drive around the City looking for new buildings or new occupancies;
- Obtaining a listing of new business licenses from the Tax and License Department and comparing the addresses to FH;
- Obtaining a complete listing of commercial addresses from Permit Plus and comparing the results to the FH database for any missing FH commercial properties;
- ♣ Working with Information Technology Department to access the feasibility of automating the process of updating addresses into FH from other City systems; and
- ♣ Assessing the feasibility of formalizing FH addresses with current and future City systems.

Research the feasibility of satellite imaging comparison over time to identify building changes which can be flagged to verify that they were permitted and related activities were performed (permits, inspections, certificate of occupancy, and etc.)

Management Response

8.1

We agree with recommendation 8.1. We are aware that an audit is underway that should address Permits Plus/ACCELA. Once those recommendations are tendered, FP will work with Community Development and Building Safety to create a system of checks that will address parity between the two systems. The three departments may also use the highly accurate TFMRD GIS database being updated currently. This update is comparing satellite imagery to current maps and should be concluded by June 1, 2016. As FP becomes aware of non-permitted building changes, they will transmit that information to the Building Safety Department.

9. Increased inspection frequency can decreases the risk of loss of life or property from fire.

As of June 2014, the City had approximately 10,662 occupancies requiring inspection to insure the safety of firefighters, civilians and property. The City is currently on a six-year cycle for re-inspections. The 2014 goal was to reduce the time that it takes to re-inspect to a three-year cycle. Internal Audit benchmarked eight (8) municipalities' estimated cycle inspection period. The following table summarizes the results:

Established performance standards can serve to ensure violations are resolved and updated accurately in FH. Adoption of a set of risk-based selection criteria for the inspection process will direct limited resources towards higher risk areas.

Estimated Cycle Time

City	Estimated Cycle Time to Inspect Existing Structures	% of Existing Construction Inspected Annually	Number of Inspectors/Investigators FY2014-15
Tempe	6 Years	17%	5 Inspectors/Investigators
Mesa	High Risk Every Other Year Medium Risk 3 Years Low Risk 3 Years (Safety Visit Performed by Volunteers)	35%	5 Inspectors 12 Firefighters rotate as Investigators
Chandler	High and Maximum Risk Annually Moderate Risk Bi-annually Self-inspection - Annual	77%	2.5
Gilbert	Every 15 months	85%	2 Investigators 2 inspectors 2 Volunteers
Scottsdale	High Risk Annually, based upon priority Low Risk 3 Year Rotation (Completed by Engine Company inspections)	47%	2 Inspectors 5 Investigators
Glendale	High Hazard 1 Year Medium Hazard 2 Years Low Hazard 4 Years	13%	8 Investigators (2 Trained as inspectors)
Peoria	18 Months – (Goal annually)	55%	2.5 Investigator/Inspector
Corona, CA	1-3 Years – Depending on type of occupancy	Not Reported	1 Investigator 2 Inspectors

FP's Fire Inspectors are geographically assigned a region of the City to conduct and manage the re-inspection process for their assigned region. They are required to process twenty (20) inspections per month and fire engines are required to conduct five (5) low risk safety inspections per quarter. Our benchmark study showed that other cities had established goals of 13-80 inspections per month for each inspector. Due to variations in organizational structures, differing duties and responsibilities for like-named positions, and differences in the definition of an inspection, it is difficult to make direct comparisons between cities' inspection goals. In addition, benchmark results revealed that staff tasked with completing inspections varies from

city to city. Several benchmarked cities utilize volunteers and investigators to assisting in completing inspections. The charts below summarize the number of inspections completed by benchmarked cities for FY2013-14:

Inspections Performed

City	Inspections
Tempe	2,253
Mesa	2,367
Chandler	5,303
Gilbert	5,605
Scottsdale	6,940
Glendale, AZ	2,000
Peoria	2,587
Corona, CA	1,311
Springfield, MO	1,119

Engine Company Inspections Performed

City	Inspections
Tempe	166
Gilbert	1,950
Corona, CA	1,322
Springfield, MO	528

Note: Information not reported for five benchmarked cities.

Results for existing property inspections are recorded in FH. Each Fire Inspector generates a quarterly list of low risk safety inspections for fire engines in their region to conduct each year. Criteria for the selection process are not formalized or documented. Each Fire Inspector uses their professional judgement and knowledge to determine what safety inspection sites to assign to each engine.

FP staff performs plan reviews and inspections without a periodic verification of work from other staff or management to ensure accuracy or completeness of results. Inspection results and supporting documents are not consistently updated and scanned into FH. This may increase the potential of undetected fire safety hazards. The audit identified opportunities to decrease this risk by strengthening the internal controls over assigning, reviewing and monitoring the inspection process and their related violations.

A. Pending New Construction Inspections/Permits

As of March 2015, 806 new construction addresses applicable to FP were recorded in Permit Plus without a completed inspection status. The addresses have an "Applied" date range from January 20, 1998 to March 16, 2015. In addition, over 200 permit forms are stored in a filing box in the FP area located in Community Development and require research to resolve their pending plan review and permit status.

B. Inspection Process for Existing Constructions

The priority of occupancies selected for inspections is based upon the length of time since the previous fire inspection, the relative hazard associated with occupancy, property inspection history, and the size of the property. Each Fire Inspector uses their professional training and judgement to assess and apply these criteria to the selection process for inspections. This process is not documented.

Fire Inspectors with different experience levels may apply the criteria differently. Undocumented processes increase the opportunity for inconsistent treatment of similar fire hazards and may be confusing to the public. Criteria may be applied incorrectly and high risk property may not receive a timely inspection. The greater the length of time between reinspections increases the risk of fire hazards to firefighters, the general public, and property.

C. Pending Existing Construction Violations

A monthly pending violation report for existing constructions is prepared by the FH administrator and distributed to the Fire Inspectors for review, processing, and a resolution. The criterion for the report is three (3) years from the date of generation. No other procedures are in place to ensure that violations are properly followed up on and closed out in FH.

A listing of all outstanding pending existing construction inspection violations was obtained from the FH administrator and reviewed by Internal Audit. For the period of December 30, 1997 to June 4, 2015 there were 1,818 pending violations reflected in FH. Two percent (2%) (40 out of 1,818) of these violations were classified by FP as a MAX (high) risk. The remaining violations were classified as typical or low risk. Violations included, but were not limited to:

- Problematic systems and systems out of service;
- ♣ Protection of containers;
- Obstructed locations;
- Open flames and sparks;
- Opening protective;
- Hazardous materials storage;
- Clean space around hydrant;
- Extension cords:
- Fire evacuation plan;
- Clean agent system;

- Abatement & electrical hazard; and
- Air Velocity.

Four hundred and thirteen (413) or 22.7% of the violations were assigned to an Inspection employee that terminated from the City November 6, 2014.

The number of open violations can be contributed to:

- ♣ The report criteria used to generate the monthly pending violations reports for inspectors only selected violations that were three years old;
- Lack of internal controls to ensure that work recorded on inspection reports are updated in FH:
- ↓ Utilization of Outlook by Fire Inspectors to track and monitor violations. Transactions stored in Outlook can only be accessed by the inspector that created the reminder notice;
- Lack of effective internal controls to monitor and ensure that follow-up inspections are completed and updated in FH by the engine captains for low-risk safety inspection violations;
- Change of property ownership;
- ♣ Company no long in business; and
- County Island occupancies.

FP Policy 302.01, Occupancy Inspection Reports and Entry, requires staff to update occupancy inspection report comments in the inspection record of the information management system. Without this data, the FP inspection program cannot be effectively managed. Unresolved violations may create a public safety hazard and place firefighters responding to emergency calls at risk. In addition, limited staffing hours utilized to research outstanding violations limits available staff hours to focus on current FP issues.

Recommendations



A proactive action plan should be developed to address pending inspections in Permit Plus and FH that may need to be inspected, canceled or reissued. The process could include:

- Researching the feasibility of hiring temporary staff or utilizing volunteer(s) to assist with reviewing outstanding new construction and existing permits and re-inspection documents to decrease the time involved with resolving the issues;
- Developing and documenting a process for researching and resolving outstanding inspections;
- ♣ Developing and documenting criteria for Fire Inspectors to use when selecting quarterly low risk safety inspections for engine companies to perform;

- Changing the FH report criteria for the monthly pending violations to include all pending violations;
- ➡ Establishing performance standards for Fire Inspections that require all violations to be resolved and updated accurately in FH. Accountability measures should be established to hold staff accountable for established performance levels;
- Updating FH for closed businesses;
- Updating FH with data from re-inspection reports that were not updated in the system;
- Re-visiting properties for which a report clearing the violation cannot be located and the business is still operational;
- ♣ Ensuring that fire engine captains re-inspect open violations related to quarterly safety inspections;
- ♣ Ensuring that any applicable fees are assessed for applicable expired permits that require a re-inspection; and
- ♣ Designee a staff to periodically review an overall violation or pending inspection report from FH and Permit Plus (ACCELA) to ensure that all inspections are cleared.
- Based upon the benchmark results, FP should reevaluate the monthly inspection performance goal required per inspector. Opportunities may exist to increase the performance level and reduce the risk related to uninspected properties.
- FP management should develop a comprehensive manual to provide staff with guidance and standards level for applying risk-based selection criteria for inspection process. The manual should include management, or a designee, generating a periodic inspection report form FH and Permit Plus (ACCELA) to ensure that all high risk inspections are being conducted. At a minimum, periodic verification of high risk plan reviews and inspections should be included in the manual.

Management Responses

- We agree with the recommendations in 9.1. The following will be implemented by July 31, 2016 if not otherwise indicated.
 - Management will research the feasibility of hiring temporary staff or utilizing volunteer(s) to assist with reviewing outstanding new construction and existing permits and re-inspection documents to decrease the time involved with resolving the issues and have a determination by June30, 2016.
 - FP now produces a monthly report of all outstanding inspection/violations.
 - FP will create a geographically driven process for assigning quarterly engine company inspections.
 - FP now produces a monthly report of all outstanding inspection/violations.
 - FP will work to establishing performance standards for Fire Inspections that require all violations to be resolved and updated accurately in FH. Additionally, accountability measures will be established to hold staff accountable for established performance levels.
 - FP will create a system for updating FH with regards to closed businesses.

- FP is in the process of updating FH with data from re-inspection reports that were not updated in the system and revisiting properties for which a report clearing the violation cannot be located and the business is still operational. This should be complete by December 2015.
- FP now produces a monthly report of all outstanding inspection/violations.
- FP will create a process to ensure that any applicable fees are assessed for applicable expired permits that require a re-inspection.
- FP will create and present to senior staff a periodically review an overall violation or pending inspection report from FH and Permit Plus (ACCELA).
- We agree with the recommendations in 9.2. Given the disparate nature of the benchmarking results used in this audit, management will consider conducting a work day assay of inspectors to determine an appropriate work product level. FP will explore technology and process to streamline the inspection process in order to increase efficiency. These two goals will be accomplished by June 1, 2016.
- We agree with recommendation 9.3. FP will create a system to assign and ensure appropriate inspection of all risk level occupancies. This system will be documented in a new policy in Volume III, TFMRD Policy and Procedure by June 30, 2016.



10. Documenting rate formulation methodology and reconciling revenues enhances consistency and accuracy in financial reporting.

City Council approved rates are the basis City departments used to assess customers for services. It is critical that approved rates are updated in revenue databases accurately and reconciled to ensure that customers are charged the correct published approved rates. Our review of rates and

the revenue reconciliation process identified a need to strengthen controls over managing the rate databases and reconciling revenues.

A. Documentation of Rate Methodology

All City service rates require Tempe's City Council approval. FP's rates were recently approved by Tempe's City Council on May 21, 2015. Prior to this date, service rates were last approved on July 1, 2010. The methodology for developing and formulating proposed new rate schedules is not adequately documented. Future processes for developing fees may be inconsistent if procedures are not documented.

B. Reconciliation of Revenues

FP revenue is entered into the PeopleSoft financial system from two separate sources:

Fire Administration daily deposits delivered to the City's Central Cashiering area; and

♣ Community Development new construction revenue generated in Permit Plus and automatically uploaded into the PeopleSoft financial system.

Entries from both methods can be adjusted by submitting manual journal entry requests to the Accounting Division. A review of FP revenue accounts for the period of July 1, 2014 to June 4, 2015 identified a manual journal entry for \$960 that was posted, in error, twice to account 4302 (Rental Charges).

As part of the Accounting year-end process for FY2013-14, Accounting staff became aware of residual balances in various permit accounts receivable (AR) and unearned income general ledger accounts. The entries were generated as part of the Community Development automated daily Oracle uploads. The Account Division processed adjusting journal entries for \$45,621 on March 18, 2014 and for \$67,908.03 on June 30, 2014 to reverse the residual balances. Detail data supporting the Oracle upload balances was not available. A request for the Oracle criteria for generating the daily uploads was requested, but not available by the

Adoption of a process to reconcile revenue in subsystems to the City's PeopleSoft financial reports for accuracy and completeness purposes is essential. FP should also document the methodology used to develop services fees for future reference.

end of the audit. The delay in obtaining the data is due to the audit and the migration of the ACCELA system occurring during the same time period and limited Information Technology Division (ITD) staffing resources to complete all audit requests and manage a critical system migration at the same time.

A reconciliation process is not in place to reconcile subsystems to the City's PeopleSoft financial reports for accuracy and completeness. If errors go undetected,

management decisions may be based upon incorrect financial information. The true operational performance levels may not be known.

A clear understanding of how reports from Permit Plus are generated is not understood by the staff generating the information. Without knowing the exact reason for the residual balances, staff cannot determine the full impact of the balances. With the implementation of a new Community Development system, ACCELA, potential errors in Permit Plus may unintentionally be migrated into ACCELA.

C. Permit Plus Database Fee Tables

The City Code's Fire Prevention and Protection Fees Schedule details City Council approved rates for FP services. Fees for new construction are entered into Permit Plus by the ITD Community Development Business Analyst and are reviewed by a Community Development staff member. Internal Audit compared the rates from the approved fee schedule to the database fee tables in Permit Plus. The below table summarizes exceptions noted:

Permit Plus Database Table Exceptions

Number of	\$	Comments	
Transactions	Amount		
27	\$5,400	Dial-up third party monitoring coded in Permit Plus is coded to "2330-4125, Fire Inspection". It should be coded to "2330-4126, Permit Fees".	
1	\$150	Base rate for an Alarm code was set up as \$50 (3 @\$50). The Fee Schedule does not reflect a \$50 rate. The fee for a Fire Alarm inspection is \$500.	
3	\$450	Sprinkler system revenue was coded incorrectly to "2330-4126, Fire Permit Fees" in Permit Plus. It should be recorded to "2330-4125, Inspection".	
31	\$6,000	Total	

[•] The Interim Fire Marshal stated that the \$150 specialty licensing fee was approved during the recession period as an additional source of revenue. Staff made the decision not to charge the fee. There is no documentation to support the authorization not to charge the fee.

D. FH Database Fee Tables

FP approved fees are entered into the FH software application by the FH Administrator without a secondary level of review. Fees entered into FH can be changed by staff members when generating a permit. There are no processes in place to monitor if approved fees are being changed and for requiring management approval before changing fees. A list of inspections performed was obtained, but the list did not always include associated fees that were charged and paid. Based upon the information provided, Internal Audit was unable to determine if the correct fees for all services were collected.

E. Multiple Site Searches For One Address

The current City Council approved FP rate for environmental assessment records research is \$25. The approved fee schedule does not specifically address whether or not this rate should be assessed per request or address. In addition, the fee schedule does not address how to bill for addresses with multiple property or suite numbers at the same physical location, such as Tempe Market Place.

Recommendations

- FP management should document the methodology used to develop services fees in order to preserve the knowledge as a resource tool when reviewing future options for adjusting fees and as a staff training tool.
- FP should ensure that data from subsystems are reconciled to PeopleSoft financial reports by working with the ITD, Community Development and Accounting Division to:
 - ♣ Document the report criteria and process for generating reports from subsystems and maintain documentation as reference material for future needs;

 - Ensure that any exceptions identified are properly addressed, resolved, and documented.
- All City Council approved rates should be charged and consistently posted to the correct general ledger account. Any deviations, adjustments, or modifications to the rate schedule should be documented and approved by City Council.
- FP should ensure fees charged and posted in subsystems are complete and accurate by:

 Providing an independent review of all FP fees and general ledger accounts updated in the database fee tables when new fees are initially approved by City Council; and
 - Researching the feasibility of removing the ability of staff to adjust billed fees in FH without the documented prior approval of a supervisor or manager.
- FP should schedule a consultation with the City Attorney's Office to obtain clarification concerning City Council's intent on how to assess the approved environmental assessment records research fee and take the necessary recommended actions. Based upon the City Attorney's Office recommendation, FP should work in conjunction with Communication and Media Relations for advice and assistance with the timing and public notification of any potential recommended changes in how the fee is assessed.

Management Responses

- We agree with the 10.1 recommendations. Fire Prevention staff will document the methodology in a policy in Volume III, TFMRD Policies and Procedures. This policy will be completed by May1, 2016.
- We agree with the 10.2 recommendations. Fire Prevention staff, the Fire Budget/Finance Supervisor, ITD, Community Development, and Accounting Division representatives will be invited to meet and discuss solutions to this recommendation before the end of 2015.
- We agree with the 10.3 recommendations. A new policy will be written to include this recommendation by April 1, 2016.
- We agree with the 10.4 recommendations. The Fire Budget/Finance Supervisor will work with FP staff will oversee the independent review as described in the recommendation. Fire Prevention staff will consult with FH vendor to determine the feasibility of restricting fee adjustment in FH software. These responses will be completed by July 1, 2016.
- We agree with the 10.5 recommendations. Management will schedule a review with the City Attorney's office by December 2015. The remainder of the recommendation will be executed as soon after securing legal advice as is practical.

Section 4 – Fire Investigations

FP is responsible for delivering fire investigation services to the City. Fires are investigated for cause and origin. Fires that are determined to be arson are investigated by a trained investigator in partnership with the Tempe Police Department and County Attorney's Office. The number of fire investigations performed by Tempe in the past 4 years follows:

Fiscal Year	# of Investigations
2012	86
2013	111
2014	94
2015*	53

*Through 6/9/15

The Deputy Chief or supervisor at the fire scene ultimately determines whether a fire investigator is needed at a fire scene. Investigators are dispatched through a central alarm center. Department policy states that investigators will normally respond within 30 minutes to a fire scene once dispatched. We reviewed the response time for investigations from January 2013-Febraury 2015 and found the average response time to be 17 minutes. Our benchmarking study revealed that most cities' policies require response within one hour and, for those who tracked response time, the average was 20-40 minutes. Therefore, Tempe has a very favorable response time compared to other cities in our study.

Although none of the investigators are Certified Fire Inspectors, all but one have completed a series of four arson education classes (the one investigator who has not completed this entire series is on call only once every 5th week and primarily handles inspections in the Development Services Division.) It should be noted that there are many requirements for becoming certified and not all aspects of certification are under the control of the investigator (such as number of investigations performed and court testimony).

Investigators work with the Tempe Police Department arson detectives if a fire is of a suspicious nature. Investigators review the scene along with detectives and document their findings in a report entered into FH. The number of arson cases investigated over the past three (3) calendar years follows: sixteen (16) in 2012, twenty-four (24) in 2013, and eighteen (18) in 2014. By comparison, for the benchmark cities in 2014, the number of arsons recorded ranged from two (2) to fifty-three (53).



11. Improved management controls and policies related to Fire Investigations will guide more efficient and effective operations.

We reviewed the investigation policies and procedures, interviewed staff, analyzed investigation reports and data, and reviewed a sample of investigation files. Although most areas were in good

condition, we did find some areas that could be strengthened. The following details areas where management controls and policies could be improved:

Conflicts of Interest

There is no written policy to address how investigators should handle situations where a fire investigation needs to be performed at a City employee's/Fire Department employee's residence or business or when an employee is suspected to be involved in a fire. Potential conflicts of interest come

Internal controls to address potential conflicts of interest, ensure proper management review of reports, track pending investigations, and ensure the completeness of investigations are warranted.

into play in situations where the Fire Department may have to investigate their own employees or other City employees. The lack of policy to address these situations places the Department and the City at risk.

Investigator Reports

Once an investigator completes an investigation report and comes to a conclusion as to the origin and cause of the fire, no other staff or management reviews the report for completeness or accuracy. Without independent review of the investigation reports, inaccurate conclusions, deficient investigative techniques and inadequate documentation supporting the report's conclusions could go undetected.

Pending Investigations

There is a lack of management control over pending investigations. At the time of our audit work, no report was available in FH to provide management a listing of pending investigations for monitoring purposes. During the audit, a report was developed of all investigations that have not been completed. Without a monitoring report, management is unable to track the status of investigations to ensure timely completion.

Tracking Investigation Calls

There are no controls in place to ensure that all investigation calls dispatched by the central alarm center are accounted for in FH. We performed a comparison of dispatched calls from the alarm center to investigations in FH for the period January 2013 to February 2015 and investigated 23 exceptions. None of the exceptions were cause for concern, but there is no reconciliation of the two systems. If a call was dispatched but did not get entered into FH, the investigation report for this call may not be completed and the missing report could go undetected.

File Storage

Investigation files are stored in unlocked cabinets. To get access to the cabinet location, you must pass a front desk area that is usually manned, but not always. The doors leading to the cabinets are not locked. Backup of most, but not all, of the documents in the files are also contained in the FH system. In addition, when files are removed from the cabinet, a placeholder with the name of the person taking the file is not inserted in the cabinet. Without proper security and file accountability, files could be stolen, lost or go missing without detection.

Recommendations

- Where potential conflicts exist, a policy should be created to address these situations and require that an outside agency perform the fire investigation.
- Department management should establish a policy that all investigation reports and documentation should be reviewed and approved by someone independent of the investigation. At a minimum, another investigator not involved in the investigation should review the report. The best solution would be for the fire marshal to review and approve all work products since they are ultimately responsible for the work of the unit.
- The newly developed report of pending investigations should be provided to the Fire Marshal at least monthly for review.
- Staff should periodically run reports to compare dispatched investigation calls to FH investigation records and follow up on exceptions.
- The file cabinets should be locked at night and when the front desk is not manned. In addition, a placeholder system needs to be established so files that are removed from the cabinet are accounted for. Staff has already taken action to assign the Administrative Assistant as the custodian of the files.

Management Response

We agree with the 11.1 recommendations. Fire Prevention will update Volume III, TFMR Policy and Procedures to notify the Maricopa County Fire Investigation Task Force when a Police or Fire department member or other high profile city employee is involved in a fire investigation. This update will occur by December 2015. The Task Force is made up of fire investigators and special agents from the Bureau of Alcohol, Tobacco and Firearms, the Maricopa County Attorney's office, and from several fire departments in Maricopa County. The task force will conduct an independent investigation of the incident.

- We agree with the 11.2 recommendations. The report authorization section in FH has been changed to require a review by the FM. The report will not close until the FM reviews the report. Volume III, TFMR Policies and Procedures will be updated to reflect this change as soon as possible.
- We agree with the 11.3 recommendations. Fire Prevention staff will create a pending investigations report that will be forwarded to the Fire Marshal monthly. This report will be created by April 1, 2016.
- We agree with the 11.4 recommendations. Fire Prevention staff will investigate the feasibility of extracting dispatch data from CAD and have a report on accomplishing this recommendation by April 2016.
- We agree with the 11.5 recommendations. The Fire Prevention Administrative assistant will create an investigation file check out system. File cabinets are waiting to be rekeyed. Keys will be stored in a locked container that is scheduled to be acquired by October 31, 2015.

Section 5 – Education Program

Although it is difficult for cities to measure the impact of FP education programs, the consensus of the cities in our benchmarking study is that education is important and without these programs, there would be an increase in the number of fire incidents and amount of property damage. The Fire Education Specialist in Tempe coordinates and presents a number of educational programs such as fire safety, water safety, injury prevention, CPR/First Aid/AED training, fire extinguisher training. Additional programs include smoke alarm installations, juvenile fire setter interventions, in-home day care inspections, and car seat/booster seat installations. There were over 6,000 participants in these activities in 2014. The participation figures for the various educational offerings are reported in the Department's annual report.



12. Consistent educational activity tracking methods will lead to more reliable participant data.

FH can be used to consistently track attendance for all public education classes and activities, including AED/CPR/First Aid classes.

When comparing the public education class attendance information published in the Department's annual report to the individual class reports, we discovered that the AED/CPR/First Aid classes are not being tracked in FH. Participation in these specific classes is tracked independently by training staff outside the FP area. FH is used to track all other

public education class attendance totals. FH has easy reporting capabilities and will total the classes and attendance automatically, reducing the likelihood of errors. Also, in using FH, there is a reliable repository of the class information for historical purposes.

Absence of consistent tracking methods could result in inaccurate or incomplete reporting of attendance numbers in the annual report to management and the public.

Recommendation



FH should be used consistently to track attendance for all public education classes and activities, including AED/CPR/First Aid classes.

Management Response



We agree with the 12.1 recommendations. All relevant personnel will be directed to enter public education classes in FH. This directive will be issued by October 31, 2015.



Section 6 – Grants, Contracts, and Agreements

We reviewed two of the more significant agreements the Department is a party to: the Tempe County Island Fire District IGA and the ASU Research Park IGA. For the County Island IGA, we primarily focused on the payment collection and insurance requirements set forth in the agreement. We found that this agreement is actively monitored by Department staff, the payment calculations and collections were on target, and the insurance provisions are complied with. For the ASU Research Park IGA, we sought to help the Department clarify whether the Department was responsible for conducting fire inspections at the park. With the help of the City Attorney's Office, we did clarify that the City does in fact have the responsibility to perform such inspections on the Park's buildings.

We were also requested by the department to review its responsibility for fire inspections conducted on ASU property that includes commercial element. This review led to Observation #13 below. In addition to the agreements mentioned above, we also reviewed grants. We found that there is only one active grant affecting the FP area. Observation #14 below relates to grant monitoring responsibilities.

13. Further coordination with ASU will clarify the City's responsibility for fire inspections on ASU's property containing commercial elements.

The Department's role concerning fire inspections is unclear on ASU properties that include a commercial element (i.e., College Street Commons, Stadium District Properties). On ASU properties used for normal educational purposes, the ASU Fire Marshal handles fire inspections. However, when ASU-owned properties contain commercial elements, the responsibilities are not clear. Without clarified roles, inspections may not be completed and the City could have some risk if fire damages a building that has gone uninspected. This issue results from a lack of clarity of roles between

Collaborative efforts between the City Fire Marshal, ASU Fire Marshal and the City Attorney's Office are encouraged to clarify the City's role in building inspections on ASU property with commercial elements.

ASU Fire Marshal and Tempe Fire Department's FP area.

13.1

The Fire Chief and staff should continue work with the ASU Fire Marshal and the City Attorney's Office to clarify the City's role in building inspections on ASU property with commercial elements. An IGA could serve as written clarification of responsibilities for both parties.

Management Response

13.1

We agree with the 13.1 recommendations. Senior management, Fire Prevention staff and City Attorney's Office will continue to conduct discussions with ASU leadership on the issue. This is an on-going process therefore no completion date is contemplated.

14. Documenting grant monitoring responsibilities in a formal policy will enhance the monitoring process and clarify roles and responsibilities for Department staff.

There was only one active grant affecting the FP area. The Department received a \$10,000 grant in 2012 from the Higgins Family Charitable Foundation to be used for the purchase of a portable, hands-on fire extinguisher training system, fire safety materials, training, and supplies. The required financial reports were not provided to the Foundation in accordance with the timeframe specified in the grant agreement. The grant agreement with the Higgins Family Charitable Foundation states:

Established and wellcommunicated policies and procedures are necessary to ensure the proper monitoring of grants.

"Within nine (9) months of receipt of the granted funds, the Grantee (or Tempe Fire Department) will submit to Grantor a post-grant report, with supporting documentation, including a detailed financial report, concerning the manner in which the granted funds were spent and the progress made in accomplishing the charitable purpose of the grant."

A financial report was submitted 15 months after the grant was received; however, mitigating factors existed as follows:

- ♣ The Department indicated that management was in contact with the Higgins representatives prior to the report being submitted, although there is no documentation of this contact;
- ♣ When the financial status of the grant was reported, it was indicated that there was still remaining funds to be spent and no further reports were requested by the Higgins Foundation; and
- ♣ The grant has transitioned to different staff and management over the past 3 years.



Policies and procedures need to be established to ensure proper monitoring of grants, including a transition plan when a grant monitor leaves the City, or area. The Budget and Finance Supervisor and the Assistant Chief are working on an internal grant management policy.

Management Response



We agree with the 14.1 recommendations and policy was implemented in May 2015.

15. A FH contract administrator ensures that agreed upon rates are paid only for services and goods received.

The City Procurement Manual requires all computer and communications hardware, software and/or services to be approved and requisitioned through the ITD for approval prior to

Once a current FH contract is established, a contract administrator should be assigned responsibility to manage it.

transmittal to the City Procurement Office. Since December 2006, the City paid \$71,545 related to the FH software. This includes an initial investment of \$29,945, and eight (8) annual maintenance fees of \$5,200 each for fiscal years 2007 to 2014 totaling \$41,600. During the audit, city staff nor the vendor (who was since acquired by another company), could provide a copy of a purchase order or a related contract. Although the initial of this agreement fell below the threshold requiring Council approval, both the current limit (\$50,000) and the 2006 limit (\$30,000), if the associated long-term maintenance fee is factored in, it would appear that this procurement

may have been subject to formal Council approval. It did not undergo this process, and no documentation was found to support that these expenditures were adequately reviewed and determined to fall outside of the City's formal procurement procedures. This initial purchase occurred over eight (8) years ago, and it appears internal controls were not adequate to prevent or detect this potential policy and procedure deviation.

It is essential that all procurement is made in accordance with established policy and procedures including: obtaining appropriate authorization in accordance to the total dollar value of anticipated payments, obtaining IT approval for all information systems, entering into clear and concise contractual agreements where required, and ensuring that all terms and conditions of the contract, including financial responsibilities, are complied with appropriately.



FP, in conjunction with ITD, should obtain a contract for the FH system and assign a staff member to monitor and manage the contract terms.

Management Response



We agree with the 15.1 recommendations. Fire Prevention has a copy of the pending contract with FH. Risk management is currently reviewing the proposed contract and should have their recommendations ready by December 2016. A Fire prevention staff member will be responsible for monitoring compliance.

Section 7 – Operating Assets and Systems

Accurate, useful and available information is the key to the decision making process of an organization. Prior to the 1980's, a significant portion of information used was paper based and communication was slow. Information was maintained on location in a limited format. The importance of information was often over looked as a critical organizational asset and resource. With the age of the digital revolution, organizations now have the ability to store

Sensitive data, such as social security numbers, must be deleted or encrypted to limit liability and to protect privacy.

information in multiple formats and access it locally and remotely. With the evolution of the Internet and an organization's dependency on data, the challenge surrounding information must now include more than the information itself. Considerable thought must be given to protecting the integrity and accessibility of the information in order to protect the organization from internal and external threats.

16. Limiting the type of data included in the FH database increases the department's ability to protect sensitive data from unauthorized access or misuse.

The FH database contains unencrypted, highly sensitive data related to 484 staff members throughout the Department as well as generic users from other local agencies, such as the

Guadalupe Fire Department. The data includes social security numbers, birthdates, home addresses, home and cell phone numbers, inspection and investigation reports and pictures, and other supporting documents. View only access of social security numbers is granted to managers and supervisors. The remaining FH users have view access to other sensitive data such as birthdates and other personal staff information. A clear business purpose for storing sensitive data in FH could not be identified. No documented policies and procedures are in place for creating and storing highly sensitive data.

Recommendation



FP should review and assess the business purpose for the type of data and method for storing data in FH. The process should address:

- ♣ Ensuring that sensitive data, such as social security, are deleted or encrypted to limit the City's liability and to protect employees' sensitive data. If the data is necessary for daily operations, it should be encrypted. If the data does not fulfill an operational need, it should be deleted;
- Ensuring that data is maintained in accordance with City and State laws, regulations and policies;
- ♣ Scaling down data to only what is needed to support business operations;
- ♣ Developing a policy on collecting, storing, sending, encrypting, transmitting, accessing, sharing and protecting highly sensitive data. The policy should include assigning a classification level of data based upon the sensitivity level and use of the data. A section of the policy should address how to respond if data is lost or breached; and
- Providing staff with data protection and security training.

Management Response



We agree with the 16.1 recommendations.

- All social Security number have been removed.
- Fire Prevention is in the process of clearing all deficiencies in re-inspection documentation. Once that task is complete department personnel will start to purge outdated records both written and electronic. The estimated completion for this process is March 1, 2016.
- *Information has been pared down to only what is needed by the department.*
- Fire Prevention will collaborate with ITD to create a policy in Volume III, TFMRD Policies and Procedures to address the collecting, storing, sending, encrypting, transmitting, accessing, sharing and protecting highly sensitive data. This policy will be in place by July 31, 2016.
- Management will confer with ITD to develop or find sources for data protection and security training.

17. The implementation of effective change management controls aid in keeping information systems functioning at their optimum efficiency level.

A patch is a piece of software designed to update a computer program or its supporting data, to fix or improve its security vulnerabilities and other bugs, and to improve its usability or performance. A review of the FH patch procedures identified the following:

- → As of March 30, 2015, FH is operating on version 7.12.17. The current version of the application is 7.17.04. This represents a total of 10 patch updates that have not been implemented.
- → The FP ITD Business Analyst relies upon FP staff to identify what patches should be applied to the software.
- → FP staff may not be aware of behind the scenes application processing bugs and do not possess the necessary information technology skill set to assume the sole responsibility of patch notification reviewing responsibility.
- FP and ITD staff could not identify the last date that a patch was performed.
- ♣ Staff members were unaware whether or not the missing NEMSIS file updates, referenced in the missing patches, were critical or negatively impacted daily operations in any manner.
- ♣ Prior to the audit, a staff member had not been assigned the responsibility of reviewing patch notifications. During the audit, the ITD Business Analyst for FH assumed this responsibility.
- ♣ Procedures for FH patch or change management are not documented.

There is a risk that critical security fixes and other bugs may not be updated in a timely manner, if at all. As a result, FH may not operate at its optimum efficiency level. Unapplied patches may leave FH vulnerable to data breaches and embedded system errors.

Recommendation



FP should work with the ITD to ensure that patches are updated and that a process is developed and implemented for applying patches to FH. The process should include assessing the cost and benefit resulting from applying each patch and consider bundling patches. The impact on the production environment should be considered before applying patches. Patch maintenance should be scheduled at an optimum time that will result in the least impact on FH users.

Management Response



We agree with the recommendations in 17.1. FP will work with ITD to create a process to ensure that appropriate patches are applied. This should be accomplished by April 1, 2016.

18. Strong FH access policies and procedures can protect staff from identity theft and data from misuse.

User access controls are implemented to protect system hardware, software and data from unauthorized access, use and modifications. Proper user access controls enforces adequate segregation of duties by limiting access to systems, associated data, and what type of transactions a user can initiate and process.

A. FH User Groups

The FH administrator is responsible for the overall operation of the FH software application, including establishing access rights for users in FH, which is accomplished by assigning individual user access accounts that are then assigned to particular General Group Membership screens in FH. Each General Group Membership screen allows a user to complete a particular set of tasks within FH. A user may be assigned to multiple General Group Memberships, generally based upon the user's job duties and responsibilities.

A user access listing identified a total of 404 overall FH users. FH users include FP staff, Department staff, and internal and external generic users. Eleven out of the 404 (3%) users have access to FP screens. All users, at a minimum, have access to view staff birth dates and home addresses. Management level users also have access to social security numbers. A job related purpose for access to sensitive personal data, such as social security numbers and birth dates, could not be identified. FH contains four General Group Memberships specifically related to FP:

- FP Secretary,
- Fire Public Education,
- ♣ FP Inspections, and
- FP Investigators.

FP related FH User Setup Screen and FH User Groups provide access levels for FP staff and one Community Development staff member. All access levels are not compatible with standard best practices for system security controls, such as:

- ♣ Each FP FH user has the ability to add, edit, view, and delete inspections in FH without approval or a secondary level of review.
- ♣ The Community Development staff member has add, edit, and view access levels when only view is required.
- ♣ The Community Development staff has add, edit, and view access to staffing activities when no access to staffing activities is required as part of their job duties.
- ♣ Ten (10) staff members can "Transfer Data to Tablet PC from Desktop". The full impact of this functionality is unknown by staff. The limitation as to what data (such as social

- security numbers, birth dates, names and addresses) that can be transferred is also in question.
- ♣ Three staff members have the ability to "View Administrative History & Merge Records". The full impact of the capability is unknown by staff.

Inappropriate access to FH and its related sensitive personal identifiable data increase the potential of misuse of data and identify theft. Transactions may be modified or deleted in error or intentionally without management's knowledge. Modified or deleted transactions

increase the difficulty to manage and verify revenue transactions.

Periodic review of user access privileges is essential to protect data.

A formal policy for granting access rights and privileges to users based upon job duties and responsibilities has not been developed. A formal policy reduces risk to operations and reporting due to unauthorized access and inaccurate or misused data is reduced.

B. Multiple Users Assigned Administrative Privileges

An administrative privilege is the most power user access level and it allows a user to add, modify and delete records. A review of the FH user access listing identified 18 users with administrative privileges. During the audit, the FP FH software administrator concluded that only four users required administrative privileges. Fourteen user accounts with administrative privileges were deactivated during the audit by the FH software administrator. The initial 14 out of 18 (78%) user accounts deactivated included:

- ♣ Two individuals were assigned multiple administrative user accounts. One of the individuals is a retired FP employee that is now functioning as a volunteer.
- ♣ One IT programmer that helped with the initial setup of the application and last accessed the application on April 19, 2010.
- **\|** Two administrative accounts used by ITD staff for maintenance purposes.

C. Generic Users

A review of FH users identified 42 generic user access accounts. Staff could not identify the owners of all generic user access accounts or how they were created. Two (2) out of the 42 or (5%) of the generic user accounts appear to be related to other local municipal fire departments. All generic user access accounts have the ability to view staff information, such as birth dates, personal addresses and work schedules. Logs are not being reviewed to determine how the generic user accounts are being used.

A process is not in place for reviewing or managing who utilizes generic user IDs. Without proper internal controls, management cannot identify who is accessing FH data through the use of generic user IDs.

D. Terminated Users

A review of user accounts for terminated employees could not be successfully performed. Staff was unable to generate a user ID report that linked user IDs to the applicable staff name.

The FH Administrator relies upon emails, verbal communication from management or staff, and information provided during staff meetings as notification when to deactivate terminated employees in FH. During the audit, the FH administrator reviewed user access privileges of all 404 FH users and deactivated or changed access levels based upon professional judgment. The changes made were not documented. The process resulted in over 175 user accounts reflected as inactive in FH. The administrator could not identify how many of the 175 inactive accounts were changed during the review process and what exact changes were made.

A well developed and documented data security plan to establish automatic logoff functions, and to research and correct known system glitches is needed.

Documented procedures are not in place for periodically reviewing and updating FH user access privileges based upon a security strategy of least privilege user access. Users were not always contacted before changes to their access levels were made. This resulted in some access levels having to be restored as some users were unable to perform job related duties with their new access levels. Without documentation, an audit trail does not exist to identify what changes were made, by whom and the reason for the changes.

E. Passwords

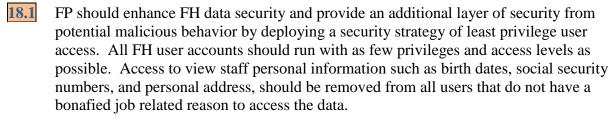
The City's Information Technology Password Policy establishes a standard for the creation of strong passwords and protection measures of those passwords. City departments are required to take appropriate steps to select and secure their passwords. Password policies and procedures have not been established for FH.

A review of FH's user access log that identified 404 user access accounts indicated that 25 generic user accounts did not have any passwords. FH users are also allowed to create one character passwords that are not required to be changed. Some users have not changed their password since the system went live in January 2000.

Weak password controls increase the risk of user accounts and city computers being breached. Unauthorized access to City computers and data could result in loss or stolen data, changes to data that may go undetected, denial of services or system access, potential data breach fines and a decrease in the public's confidence in City staff.

Improper care and handling of sensitive data increases the potential of unauthorized access and data breaches that may result in unauthorized changes, deletions and use of data. Unauthorized access to sensitive data may result in identity theft, financial loss, or invasion of privacy. Sensitive data may be subject to regulations by State and Federal laws. A compromise of data may negatively impact the reputation of FP and the City and result in State or Federal fines and penalties.

Recommendations



- FH user access listings should be reviewed periodically and updated to prevent unauthorized access to the application and its data. The review should include:
 - Limiting access to the application based upon job duties and responsibilities;
 - ♣ Reducing and maintaining administrative privileges on an as needed basis;
 - ♣ Deactivating terminated, retired, transferred and users who no longer require access to the system in a timely manner;
 - Deactivating duplicate user IDs that do not have a business purpose for being created; and
 - ♣ Documenting and archiving requests for application access.
- FP should document the process for managing user access accounts. Documented procedures maintain knowledge within a department as staff transition out of positions. The process should, at a minimum:
 - ♣ Development and utilization of a user access form to issue and modify FH access; and
 - ♣ Require user and or applicable supervisor notification for making changes to users accounts.
- 18.4 FP management should comply with the ITD's Password Policy.

Management Responses

We agree with the 18.1 recommendations. All of the recommendations have been completed. 391 users were reviewed on an individual basis. Users were assigned the correct module access for their rank or job title. Other items such as employment status were also updated.

- We agree with the 18.2 recommendations. The Firehouse Administrator will now be included in any correspondence regarding changes in status i.e. new hires, promotions, terminations and retirements. An application matrix will be maintained to track privilege levels and changes. The matrix will be complete by April 1, 2016.
- We agree with the 18.3 recommendations. Fire Prevention staff will create a policy in Volume III, TFMRD Policies and Procedures to address this recommendation by April 1, 2016.
- We agree with the 18.4 recommendations. Fire Prevention staff will review the password policy and make changes as necessary by April 1, 2016. Fire Prevention staff will also work with ITD to explore linking FH password change intervals to general City password change timetables. A Password change notice will be sent to all Firehouse users once the necessary changes are made to the Firehouse system.

19. Establishing automatic log-out practices ensures that application licenses are available when needed.

A system automatic logout feature forces an active program to close. The feature may force an inactive system to restart, shut down, hibernate, or return to the logon prompt. It is a feature that can enhance the overall security of a system.

A. FH User Sessions

A process has not been established to automatically log-out users that remain logged in, but are not actively using FH. Inactive login sessions utilize user licenses and limit access to FH by other FH users. A review of audit logs identified that FH is not set up to automatically log a user account out of the system after a defined period of inactivity:

- ◆ One user remained logged into a session for 1.6 years continuously from 09/26/09 at 11:43 am to 5/20/11 at 12:05 pm; and
- ♣ 810 out of 42,132 (2%) of login sessions reviewed remained logged in continuously from 1 to 395 days. The logins occurred from 12/16/08 to 1/27/15.

Inactive logins decrease system security by presenting an opportunity for unauthorized system access.

B. Missing FH Permit Numbers

A formalized process has not been established to protect the integrity of data and limit the potential of unauthorized access and changes to FH data. A review of the sequential permit numbering in FH identified:

- ♣ 152 permit numbers were issued with 24 (16%) permit numbers missing from the sequence of numbers. Missing sequential permit numbers may be an indication of unauthorized deletion of data or an unresolved system glitch.
- ♣ Permit numbers are primarily issued under three staff members' names that are embedded within a FH template. The individuals are not necessarily the Fire Inspector who processed the permit. Research efforts associated with the permit may be delayed since the correct Fire Inspector's name is not associated with the permit. The administrator is aware of the issue.
- → FH audit logs are not periodically reviewed for unusual trends and missing permit numbers. Unusual trends and missing permit numbers may identify a data breach or other security or data integrity issues may go undetected.

Recommendation



FP should develop and document a data security plan that identifies how the department intends to protect critical data and other IT assets. This policy should include:

- Establishing automatic logoff functions;
- Researching and correcting, when possible, know system glitches, such as missing permit numbers; and
- ♣ Developing procedures for reviewing and monitoring FH audit logs for trends and training opportunities.

Management Response



We agree with the 19.1 recommendations. Fire Prevention staff will create a policy in Volume III, TFMRD Policies and Procedures to address the recommendation by April 1, 2016. At this time, an automatic logoff has been established to log users off after 60 minutes of no activity.

Testing FH backups increases the confidence level in the ability 20. to restore systems and ensure the continuity of operations.

FH backup procedures are performed daily by ITD and stored at a remote location. Backup data is not encrypted during transmission or at rest. ITD management has stated that they have no concern related to data security or potential State or Federal fines related to the transmitting or storing of sensitive data at the City's remote location. ITD expressed concern that the data is not encrypted at the FH application level. FH is not included in the ITD's disaster recovery plan.

Procedures are not in place for periodically testing the backup data. ITD relies upon City departments to request data restoration testing for certain systems. FP has not assigned a designated staff member to manage the FH backup process and periodic restoration testing has not been requested.

Effective database backup and recovery procedures are essential. Assigned responsibility to monitor the database backup process is also necessary.

Without periodic testing of backups, a high level of assurance cannot be reasonably relied upon that backups can be used to fully restore FP. Without appropriate backups, FP daily operations and public services may be disrupted.

Recommendation



20.1 The ability to restore the FH database from valid backups is a vital part of ensuring FP business continuity. FP should develop database backup and recovery procedures that include:

- ♣ Performing periodic database restoration testing and documenting the results;
- **↓** Ensuring FH is added to the ITD's disaster recovery plan;
- ♣ Assign a FP staff member to monitor the FH database backup process; and
- ♣ Working with ITD to ensure that all laws, regulations and policies related to data at rest and in transit are complied with in order to prevent potential State and Federal fines.

Management Response



We agree with the 20.1 recommendations. Fire Prevention staff will work with ITD to develop a system of testing of FH back up data as well as complying with all applicable laws. This process will start by December 2015.

21. Aligning IT goals with business goals will ensure that FP has the necessary IT resources in a timely manner for continued success.

The Control Objectives for Information and Related Technology (COBIT) PC1 framework created by ISACA for information technology (IT) management and IT governance recommends defining and communicating Specific, Measurable, Actionable, Realistic, results-oriented and Timely (SMART) process goals and objectives for the effective execution of each IT process.

Technology goals that are aligned with business goals have not been identified by FP and coordinated with the ITD. Windows Server 2003 is the platform used by one of the two FH servers. The second server utilizes Windows 2008. On July 14, 2015, all support activities, including security fixes, for Microsoft Windows Server 2003 will be eliminated. The mainstream support for Windows 2008 ended on January 15, 2015. All support activity for Windows 2008, currently, will expire on January 14, 2020.

On November 12, 2014, the ITD received an email notification from the vendor for FH software 7.16 Release. FH Version 7.16 requires Windows Server 2008 as an operating system. There are currently two potential migration options pending for FH:

- Move to a hosted solution. The FH database and application would reside at the vendor's location in Dallas Texas; or
- ♣ Maintain FH database on a virtual server on an existing in-house physical server.

Establishing SMART goals will facilitate managing critical technology needs in a timely manner.

As of May 7, 2015, the final decision on what course of action to take in migrating FH off of Windows Server 2003 was not yet finalized. The ITD Business System Analyst for FP started the discussion process with the applicable ITD personnel. IT Security Administration provided comments on the first purposed migration options on May 5, 2015. The Fire ITD Business System

Analyst is currently waiting for migration responses from the FH vendor. If a migration decision is not finalized and implemented by July 14, 2015, ITD will implement a contingency plan and migrate the FH database to a temporary in-house server until the optimum migration process is finalized. This contingency plan will increase the total amount of technical hours and cost associated with the migration. Processes will be duplicated. Projects should be planned and executed in a timely and cost effective manner that will have the least impact upon limited City resources.



FP should work with the ITD to ensure that SMART goals are established for managing critical technology needs in a timely manner. The SMART goals should include addressing the impact on operations of any FP applications utilizing a Microsoft server for which support is scheduled to end within five years or less.

Management Response



We agree with the 21.1 recommendations. Fire Prevention staff will work with ITD to address this recommendation. This process will start by April 1, 2016.

22. Effective succession planning provides a resource pool of knowledge and skilled staff that ensures smooth continuity of operations.

Succession planning is a process for increasing the availability of experienced and capable employees that are prepared to assume critical roles and responsibilities as positions become vacant. FP is currently facing the associated challenges of continuity and consistency of performing daily job duties and responsibilities due to high levels of employee turnover. Staff

A well-developed and implemented succession plan for FH administration and other critical tasks can alleviate the effects of losing important institutional knowledge and decrease the impact upon daily operations due to staff turnover.

has worked diligently to ensure that the most critical tasks are completed by prioritizing their assigned duties and cross training. This is has resulted in some FH administrative tasks, such as technology inventory, not being completed in a timely manner. Certain critical roles, such as the FH administrator, do not have designated trained backups and the department continues to rely upon volunteer hours to complete critical tasks, such as GPS

mapping. Errors may increase as new staff learn new job duties and responsibilities and incorporate new duties with their current workloads. Succession planning is a concern for management, but as yet has not been formally addressed.

Recommendation



The Government Finance Officers' Association (GFOA) encourages governments to address key issues and develop strategic succession planning. FP should develop and implement a succession plan for FH administration and other critical tasks to prevent the

loss of important departmental knowledge and to decrease the impact upon daily operations due to staff transitioning out of the department.

Management Response

22.1

We agree with the 22.1 recommendations. Management will explore options for succession planning as recommended by April 1, 2016.

23. Limiting the number of records maintained after the approved retention period decreases the City's liability.

The Arizona Revised Statutes General Records Retention Schedule for Fire Districts and Municipalities Fire Departments (including FP) identifies the minimum number of years that records are required to be maintained in accordance with State statutes. Compliance with this schedule ensures that records are kept only as long as legally and operationally required.

FP has not developed a comprehensive records retention policy to ensure that records are maintained in accordance with State and City approved retention schedules. A review of the retention policy for FP determined records are being maintained 12 to 15 years or longer than legally required. Paper records are stored onsite at least as far back as 1999.

The following chart summarizes a sample of records being maintained beyond the required approved retention period:

Procedures are needed to ensure that documents are maintained in accordance with approved retention schedules, eliminating the practice of maintaining duplicate copies of documents without a business purpose for doing so.

Partial General Records Retention Schedule for FP Records

Item #	Record Series	Retention Years	Start of Retention	# of Years Exceeding Approved Retention
10	FP/Notices of Violations/ Citations	3	After Created	Over 12 Years
16	Inspection Summary Reports	3	After Created	Over 12 Years
20	Permits			
	a. Burn permits	1	After Issued	Over 14 Years
	b. All other permits	1	After Expired	
31	Volunteer Reports (periodic)	1	After Created	Not Being Prepared

All Fire inspection reports completed by a Senior Fire Inspector for new constructions are not maintained. A copy of the completed signed new construction fire inspection report is given to the site contact. After the inspection information is updated in Permit Plus and FH, the Senior Fire Inspector shreds the remaining copies.

In addition to paper retention, copies of site request reports are duplicated; they are maintained both electronically and in hard copy format.

Maintaining records beyond the minimum required retention period or not retaining them at all increases the City's liability and potential cost in cases of legal discovery, the burden on staff when accessing and utilizing records, and the cost of information storage. Keeping records beyond the minimum retention period decreases the effective utilization of office space, and prohibits the systematic disposal of obsolete records.

Recommendation



FP should develop a record management program and assign a record management officer to ensure that documents are maintained in accordance with the approved retention schedule and limit the practice of maintaining duplicate copies of documents without a business purpose for doing so.

Management Response



We agree with the 23.1 recommendations. Management will work to identify appropriate department stakeholders to participate in the creation of a records retention policy and a plan to enact the components of that policy. The policy will be complete by April 1, 2016.

24. Completing volunteer packet provides documentation needed to honor the contributions of volunteers.

The City's volunteers provide a valuable service to City departments and the public by donating their valuable time, energy, and talents that aid in assisting departments to reach organizational goals at no additional cost to the department. To assist staff a Working with Volunteers policy manual was developed by the City. The policy apply to all volunteers in all programs and projects (except Board and Commission members) undertaken on behalf of the City and to all departments and City worksites.

FP has one volunteer assigned to mapping the FH GPS system addresses. The volunteer is a former firefighter with the Department that retired on April 30, 2014. As an employee, the retiree functioned as the FH administrator. As a retired volunteer, he has administrative privileges in FH, an ITD City issued user ID with access to the City's server and VPN access.

Staff has stated that no one else in FP has the mapping knowledge possessed by the retiree. The retiree completes his work without staff oversight.

The retiree has not completed a City Application to Volunteer Form. In accordance with City policy, the volunteer hours are not being tracked and a volunteer folder is not Volunteer management procedures are outlined in the City's Working with Volunteers - A Policy and Procedures Manual.

maintained by FP management. Adequate and accurate tracking of volunteer hours provides the City with the necessary support for volunteer recognition, verification of service, budget and risk management purposes, and program promotion. FP is not in compliance with the City's Working with Volunteers Policy and Procedures Manual.

FP management was unaware of the volunteer policy and procedures and did not complete the required documentation.

Recommendation



FP should abide by all applicable procedures outlined in the Working with Volunteers - A Policy and Procedures Manual. This should include the completion of a volunteer application, establishment of a volunteer folder and the implementation of a process for tracking volunteer hours.

Management Response



We agree with the 24.1 recommendations. Fire Prevention will abide by the recommendation.

25. Accuracy of spreadsheet information increases with built in reconciliation formulas.

The FH Administrator prepares a monthly Construction Inspections Summary Plan Check and Construction Inspections report for FP management that summarizes the square footage of

monthly plan check and inspection activity. A review of the report for March 2015 identified the following:

♣ A check figures are not being used in the Excel spreadsheet to validate the accuracy of the spreadsheet. Check figures increase the accuracy of spreadsheet information.

→ The number of Construction Inspections for January 2015 is recorded as a total of 76. The individual columns in the report actually totals to 78. The incorrect total for Construction Inspections is then carried forwarded into the various charts.

Inconsistent information creates confusion when discussing performance measures. Controls are needed to increase spreadsheet information accuracy and usefulness to users.

Recommendation



The FH Administrator should review the monthly plan check and construction inspections spreadsheet to eliminate duplication of information and include check figures to increase the accuracy of the spreadsheet.

Management Response



We agree with the 25.1 recommendations. The FH Administrator has reviewed current EOM spreadsheets and confirmed that they are accurate. A monthly review will continue from this point forward.

26. Periodic inventory of computer assets facilitates effective planning and budgeting for future technology resource requirements.

Purchased technology asset information is recorded by ITD in a database to reflect the initial installation point of the asset. Anytime a user requests a move of equipment, the asset information is updated as part of the support and record maintenance process. Upon request from departments, ITD will provide an asset listing to use as a tool to perform an inventory of items on hand. Departments are tasked with notifying the ITD concerning any necessary inventory adjustments. As part of a department technology refresh process, ITD performs a full inventory of equipment accounting for any retirement of old equipment, finding equipment that is no longer in an area and recording new equipment information at the time of deployment. According to the ITD, it has been over six years since the last refresh.

On May 1, 2015, a computer asset inventory listing for FP was provided to Internal Audit by the

Effective policies and procedures to administer computer equipment of DS can serve to manage these assets and avoid potential loss or misallocation of limited resources.

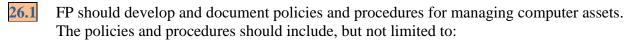
ITD. The listing identified 51 pieces of equipment (14 laptops, 19 monitors, 10 PCs, 1 scanner, 3 plotters, and 3 projectors). Twenty-nine percent (29%) or (15 out of 51) of the listed items were selected to confirm their existence and location. One item assigned to FP, an HP L1730 Monitor, purchased in 2004 with an original cost of \$375 could not be located. In addition to this missing

item, the following exceptions were noted:

- ♣ A combination of 45 laptops, monitors and PCs were recorded on the ITD asset listing without being assigned to an individual or location.
- ♣ Staff could not identify the last time an inventory was performed. The system administrator is responsible for performing FP computer asset inventories. This task has not been completed because of other higher prioritized job duties and responsibilities.
- No procedures are in place for periodically inventorying computer assets and reconciling FP records against ITD's records.

Without an accurate count of assets, and a periodic inventory of these assets, the ITD's citywide computer asset inventory database maybe inaccurate. Decisions made based on inaccurate asset listings may result in the misallocation of limited resources.

Recommendation



- ♣ Requesting an annual technology listing form the ITD;
- Perform periodical physical inventories;
- ♣ Reconciling FP inventory listing with ITD's annual listing;
- ♣ Designating a primary and secondary asset custodian; and
- ♣ Incorporate any applicable ITD policies and procedures into FP's policies and procedures recommended guideline manual.

Management Response

We agree with the 26.1 recommendation. Fire Prevention staff will create a policy in Volume III, TFMRD Policies and Procedures to address the recommendation by May 1, 2016.